

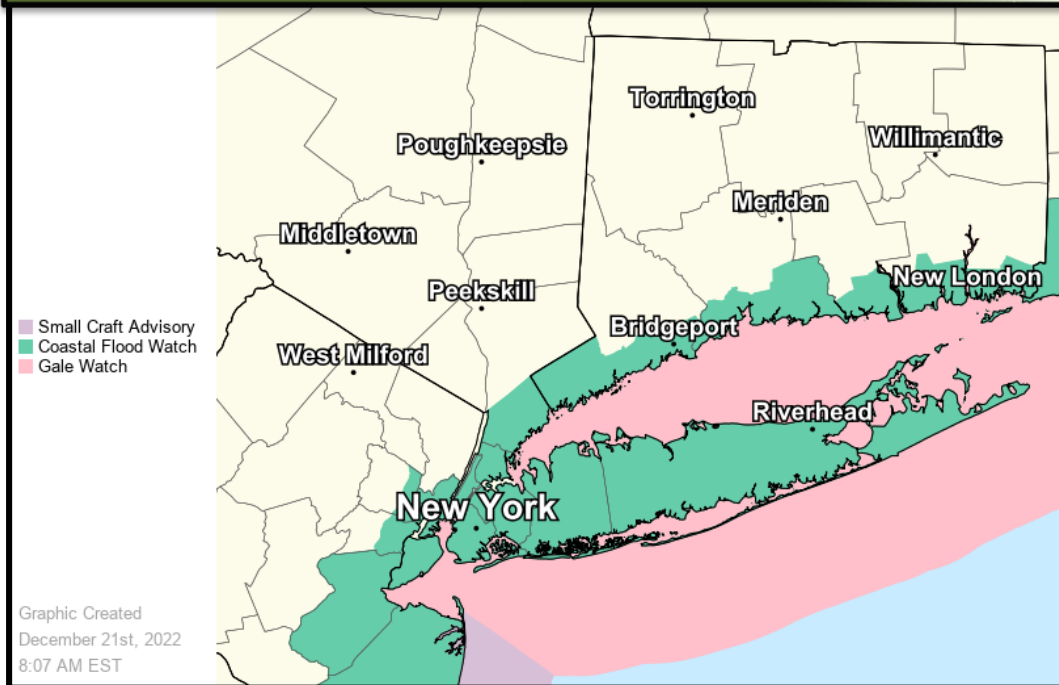
# Major Late Week Winter Storm

## Decision Support Briefing #3 As of: 6:00 AM Dec 21, 2022

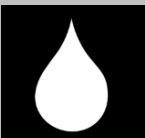




### What Has Changed?

- *Winds/Gusts have increased across the area.*
- *No headline changes with this update.*

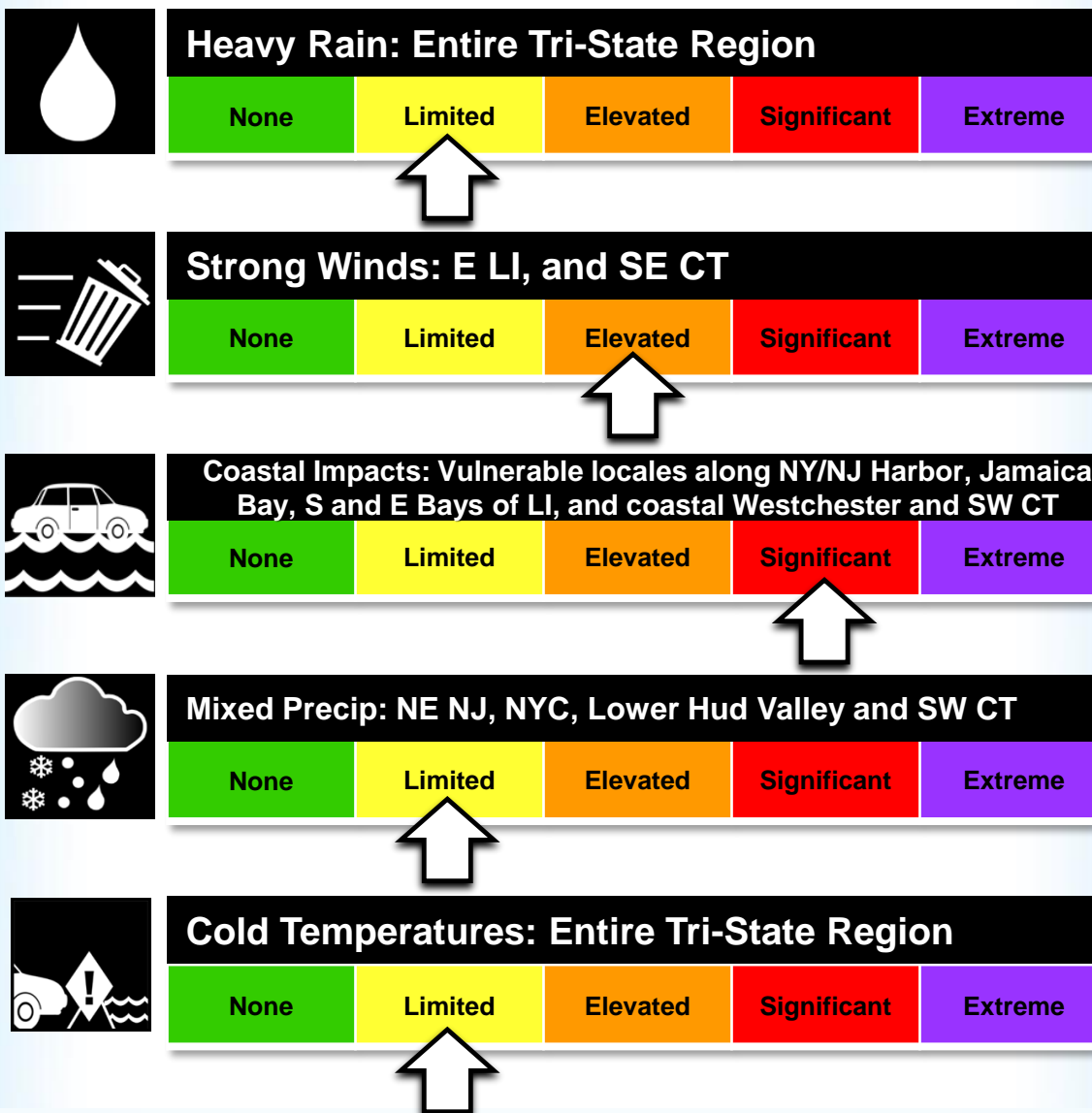
### Current Hazards



## Main Points

Hazard	Impacts	Location	Timing
<b>Heavy Rain</b> 1.5 to 2.5 inches, locally 3 inches. 	<ul style="list-style-type: none"> <li>Minor Flooding of Urban Areas, Low-lying Roads, and Small Streams and Creeks.</li> </ul>	Entire Tri-State Region	Thursday Evening through Friday Afternoon
<b>Strong Winds</b> 25 to 35 MPH with gusts to 45 to 55 mph 	<ul style="list-style-type: none"> <li>Strong winds will blow down scattered tree limbs and blow around unsecured objects.</li> <li>Power outages possible.</li> </ul>	Entire Tri-State Region	Late Thursday night through Friday evening
<b>Coastal Impacts</b> 1 to 2 ft, locally 3 ft of flooding AGL 	<ul style="list-style-type: none"> <li>Widespread moderate to locally major flooding possible Fri am high tide.</li> <li>Areas of dune erosion and scattered overwashes along oceanfront</li> </ul>	Greatest threat along Jamaica Bay, S and E Bays of LI, coastal Westchester and SW CT	Friday AM high tides
<b>Mixed Precip.</b> 	<ul style="list-style-type: none"> <li>Little, if any, accumulation expected.</li> </ul>	NE NJ, NYC, Lower Hud Valley and SW CT	Briefly at onset Thursday afternoon/evening (well NW of NYC). Then with scattered snow showers late Friday afternoon/evening
<b>Cold Temperatures</b> Min windchills in single digits and teens. 	<ul style="list-style-type: none"> <li>Potential for localized flash freezing of bridges and elevated surfaces with snow showers Fri Eve.</li> <li>Scattered areas of black ice</li> </ul>	Entire Tri-State Region	Late Friday aft into Fri Night

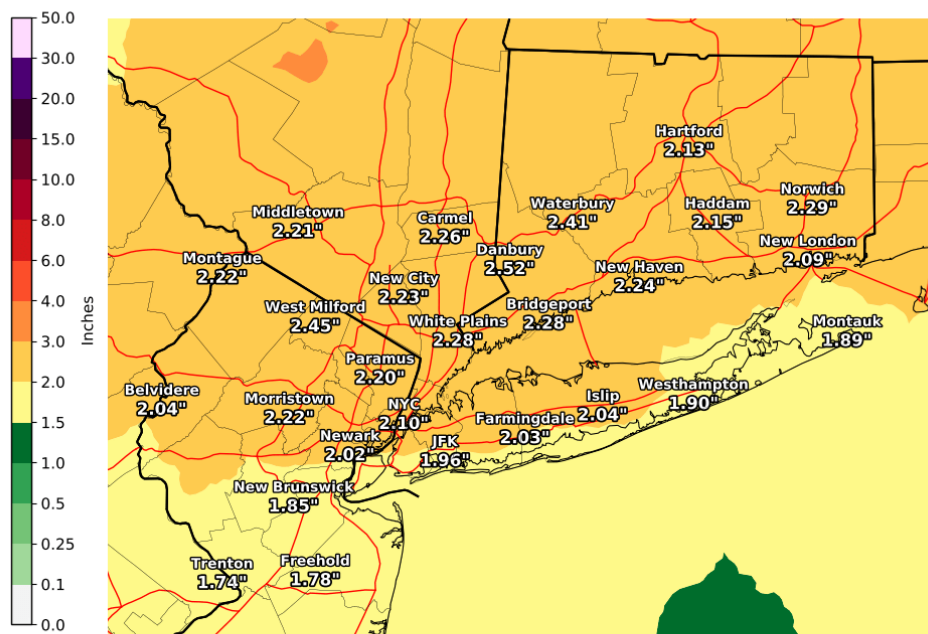
## Summary of Greatest Impacts



## Heavy Rain

### Expected Rainfall/Liquid Equivalent

Valid: 12/21/2022 12:00 AM - 12/24/2022 12:00 PM EST



National Weather Service  
New York NY  
12/21/2022 04:06 AM EST

Follow Us:     
weather.gov/nyc

### Hazards:

- ✓ Rainfall of 1.5" to 2.5" with locally 3 inches possible
- ✓ Rainfall rates of 0.25 to 0.5"/hr

### Impacts –

- ✓ Minor urban flooding of low-lying Roads, and Small Streams and Creeks
- ✓ Minor river flooding possible on fast responding creeks/rivers

### Timing:

- ✓ Heaviest rain from 7pm Thursday through 7am Friday.

### Forecast Challenges:

Confidence is increasing in forecast rainfall amounts. Flood impacts may be locally enhanced due to combo of rain and coastal flood inundation.



# Flood Hazard Outlook



## Experimental 7-Day Flood Hazard Outlook

Includes Flash, River, and Tidal Flood Hazards

**NWC** National Water Center

Issued: 2022-12-20 03:00 PM CST (21:00 UTC) | Valid Through: 2022-12-27 03:00 PM CST (21:00 UTC) | Next Issuance: 2022-12-21 03:00 PM CST (21:00 UTC)

### Flood Hazard Messages

#### Northeast

- Flash, urban, and small stream impacts are possible Wednesday through Thursday with river flooding impacts lingering through the weekend in response to moderate to locally heavy rainfall combined with snowmelt.

#### Eastern Seaboard

- Minor to isolated major coastal flooding impacts are possible this weekend during high tide. Refer to products issued by local NWS offices for more details.

#### Midwest and Upper Great Lakes

- Cold temperatures, combined with elevated streamflows from recent rainfall, may generate freeze-up ice jams on small, open rivers this week.

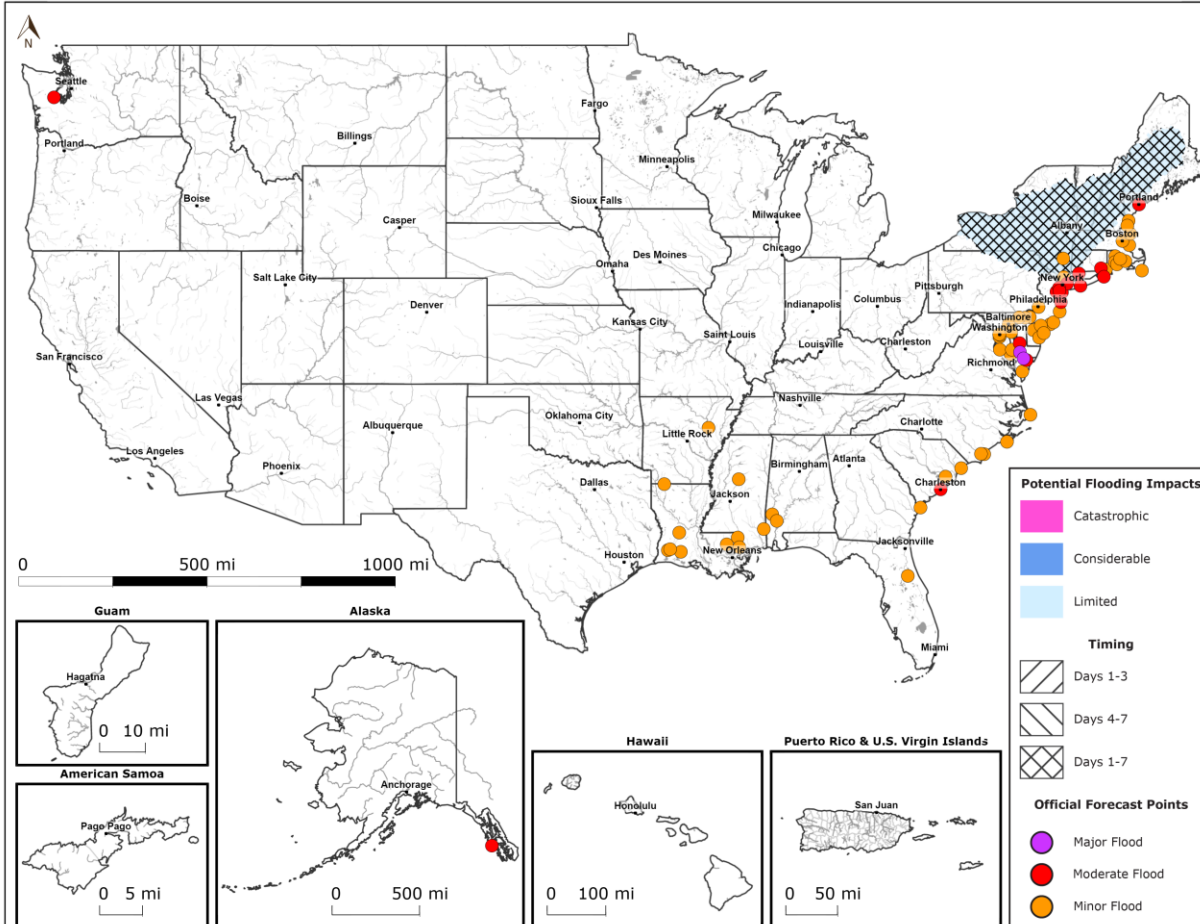
#### Louisiana and Alabama

- Minor river flooding will continue on downstream portions of the Calcasieu and Pearl (LA) rivers through this week, and on downstream portions of the Tombigbee River (AL) through Thursday.

#### Western Washington

- Multiple rounds of rainfall combined with a significant warm up this weekend may result in hydrologic impacts. Confidence remains low at this time, but this area will be closely monitored.

**Disclaimer:** This outlook provides an overview of potential flooding impacts. Please refer to detailed products issued by local National Weather Service offices for official forecasts and warnings. ([www.weather.gov](http://www.weather.gov))



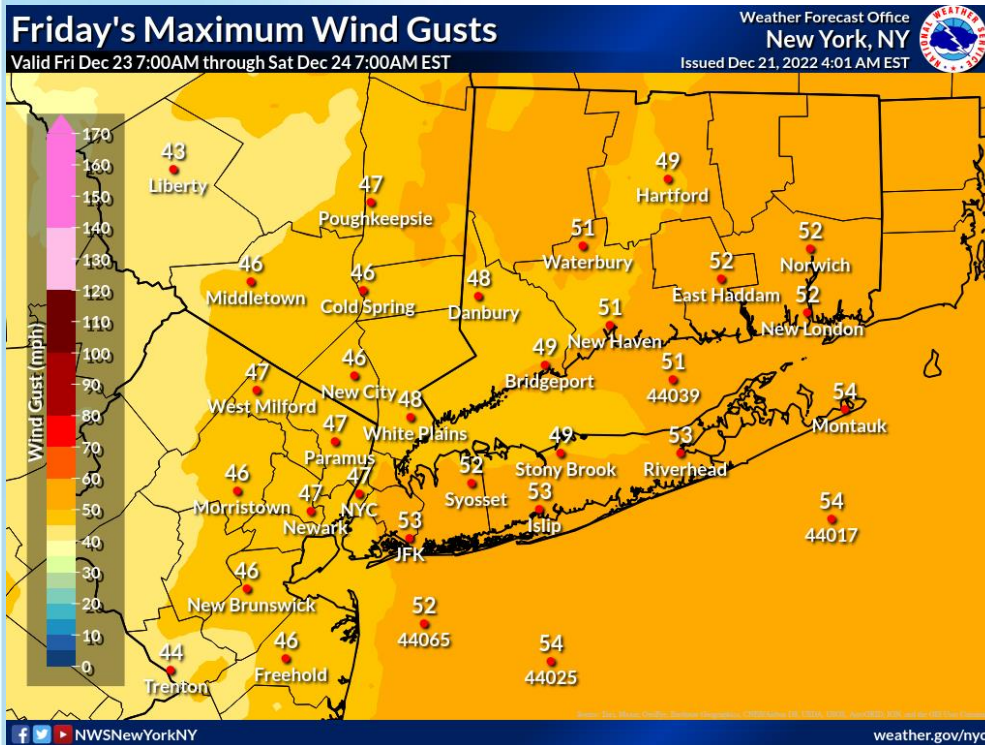
To learn more or provide feedback, visit: [https://nws.weather.gov/products/PDD/PDD\\_ExpFloodHazardOutlook\\_2022.pdf](https://nws.weather.gov/products/PDD/PDD_ExpFloodHazardOutlook_2022.pdf)

Prepared with NWS/WPC/NWS Forecasts





# Strong/Damaging Winds



## Forecast Challenges:

Confidence is increasing in the magnitude of the forecast winds, through timing of peak winds may change based on storm track and intensity.

## Hazards and Impacts:

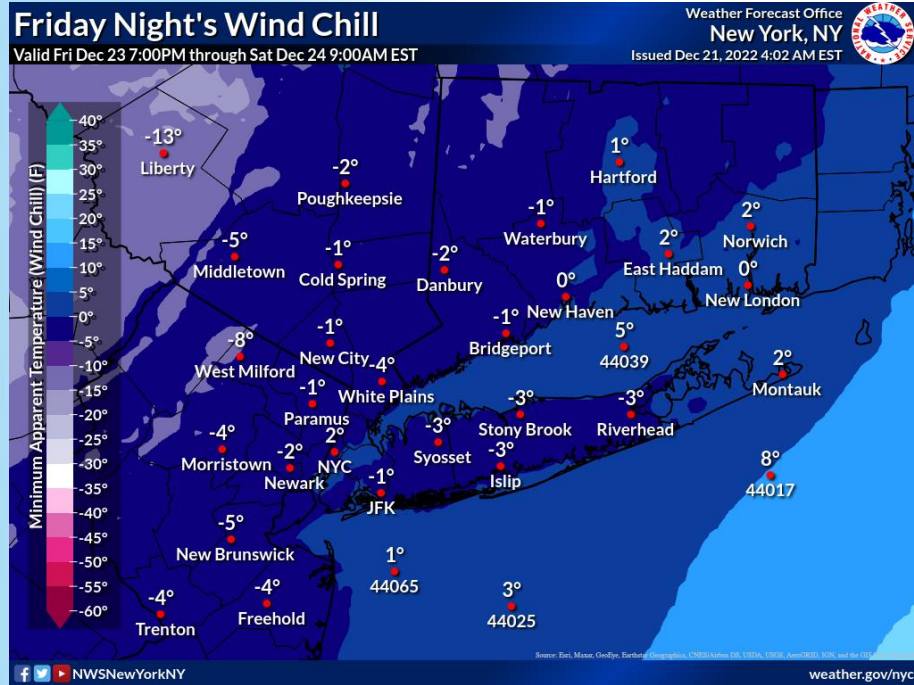
### Location – Eastern Long Island

- ✓ **Peak Winds:** SE/S winds of 25 to 35 mph with gusts 45 to 55 mph, across much of the area. Highest gusts across eastern Long Island and southeastern CT.
- ✓ Winds will shift to the SW/W Friday afternoon/evening with the same speed.
- ✓ There is a low probability of SE/S winds of 40 mph with gusts to 60 mph, particularly across eastern Long Island and southeastern CT.
- ✓ High wind warnings or wind advisories may be needed in subsequent forecast updates.
- ✓ **Impacts:** Strong winds will blow down scattered tree limbs and blow around unsecured objects.

### Timing:

- ✓ Strongest winds from 11pm Thursday through 5pm Friday.

# Cold Temperatures / Flash Freeze Potential



## Hazards:

- ✓ Temperatures plummet to 10 to 20F, with wind chills of -5 to 5F.
- ✓ Friday Night:
  - ✓ Low Temps: Low to mid teens interior and Mid to upper teens coast.
  - ✓ Min wind chills: -5 to 5 F
- ✓ Saturday:
  - ✓ High Temps: Low 20s interior and Mid 20s coast.
  - ✓ Wind chills: 5 - 15F
- ✓ Saturday Night:
  - ✓ Low Temps: Low teens interior, Mid to upper teens coast
  - ✓ Wind chills: -5 to 10F
- ✓ Sunday:
  - ✓ High Temps: Mid 20s interior and Upper 20s to 30 coast.
  - ✓ Wind chills: 10 to 20F

## Impacts:

- ✓ Localized Flash freeze potential across Interior, causing hazardous travel conditions especially on bridges and elevated surfaces Friday night through Saturday morning.

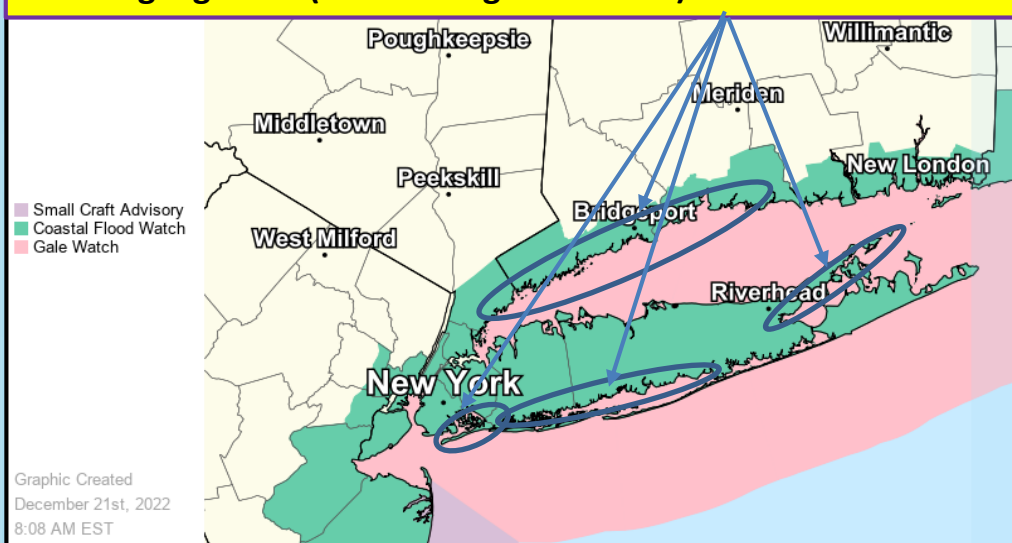
## Forecast Challenges:

- ✓ Depending on how quickly temperatures plummet Friday evening, there is potential for a flash freeze of slushy surfaces across the Interior especially on bridges and elevated surfaces.

# Coastal Flooding

## Marine / Coastal Hazards

**Threat areas for locally major coastal flooding during Friday morning high tide (3 ft above ground level)**



For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential inundation map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)

## Coastal Flood Hazards and Impacts:

- ✓ **Widespread Moderate to Major (2 to 3 ft flooding above ground) coastal flooding potential** for S Nassau, S Queens, SW Suffolk as well as Twin Forks of LI, S Westchester and coastal SW CT.
- ✓ **Potential Impacts** – Numerous low-lying and shoreline roads will be closed in the area, with adjacent properties taking on water. Cars may be inundated if not moved to higher ground. Some flooding into areas that normally don't experience flooding.
- ✓ **Widespread moderate potential (around 2 ft above ground) coastal flooding** along NY/NJ harbor, Newark bay and tidally affected portions of Hackensack and Passaic Rivers, SE Suffolk, SE CT, and sound front communities of LI.

## Shoreline Hazards and Impacts:

- ✓ 10-15' breaking waves along the oceanfront, resulting in widespread dune erosion and scattered overwashes.
- ✓ 3 to 5' along coastal CT and Orient Point shoreline resulting in beach erosion, localized overwashes, and possible damage to shoreline structures.

## Timing:

- ✓ Around and near the times of high tide Fri AM

**Forecast Challenge:** The extent of major coastal flooding (3 ft above ground) will depend on strong southeast winds continuing right through the time of high tide Fri AM. Low prob for minor flooding with Thu eve high tide. Potential for residual minor to moderate coastal flooding in the great South Bay with Friday Evening High Tide.

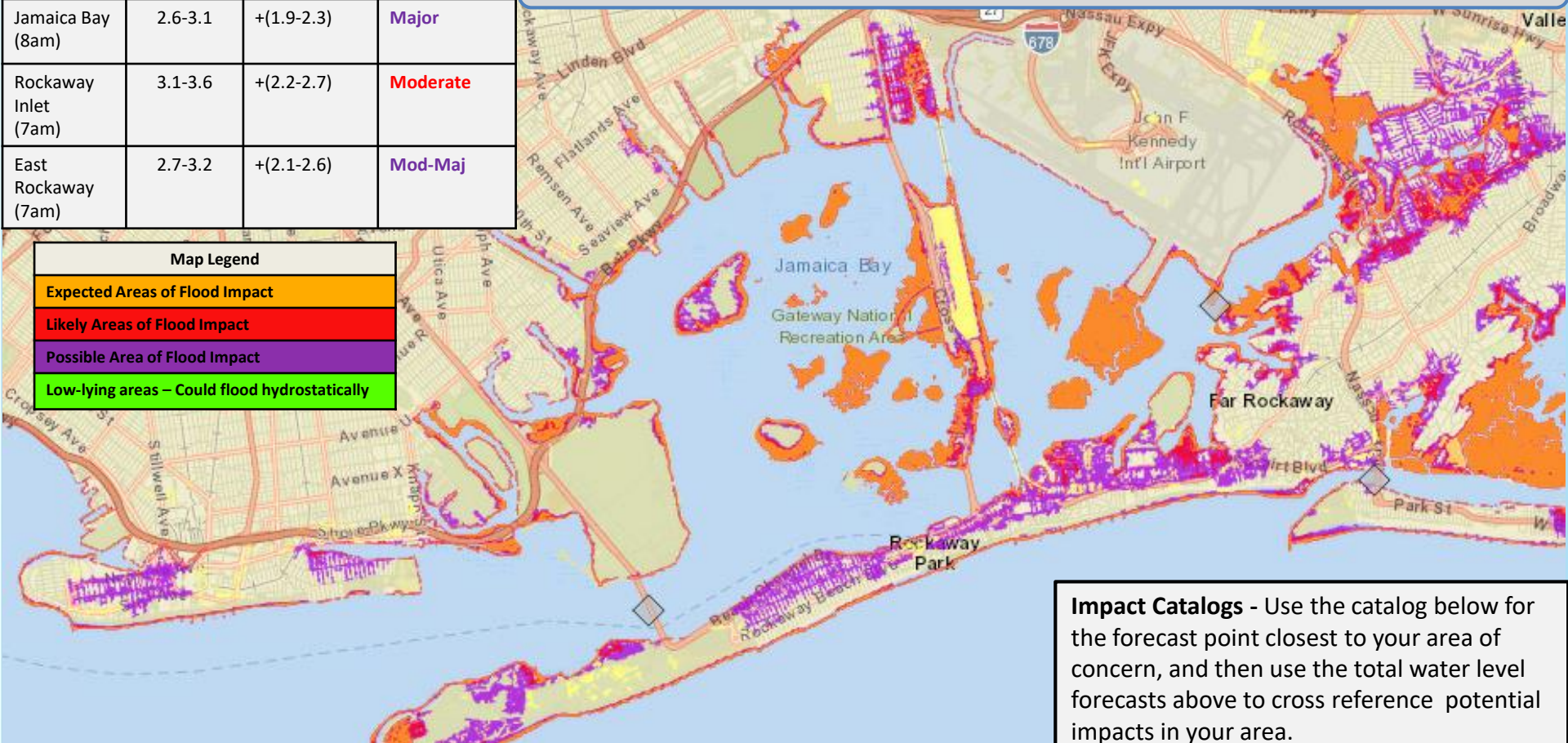
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12/21/2022 8:16 AM



## Coastal Flooding – Potential Flood Impact Areas

Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Jamaica Bay (8am)	2.6-3.1	+(1.9-2.3)	Major
Rockaway Inlet (7am)	3.1-3.6	+(2.2-2.7)	Moderate
East Rockaway (7am)	2.7-3.2	+(2.1-2.6)	Mod-Maj

The map below shows the potential extent of flood impact (water above ground) during the Friday morning high tides. Flooding may be as deep as 2 to 3 ft in spots.



**Impact Catalogs** - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [Jamaica Bay at Inwood](#)
- [East Rockaway](#)
- [Rockaway Inlet](#)

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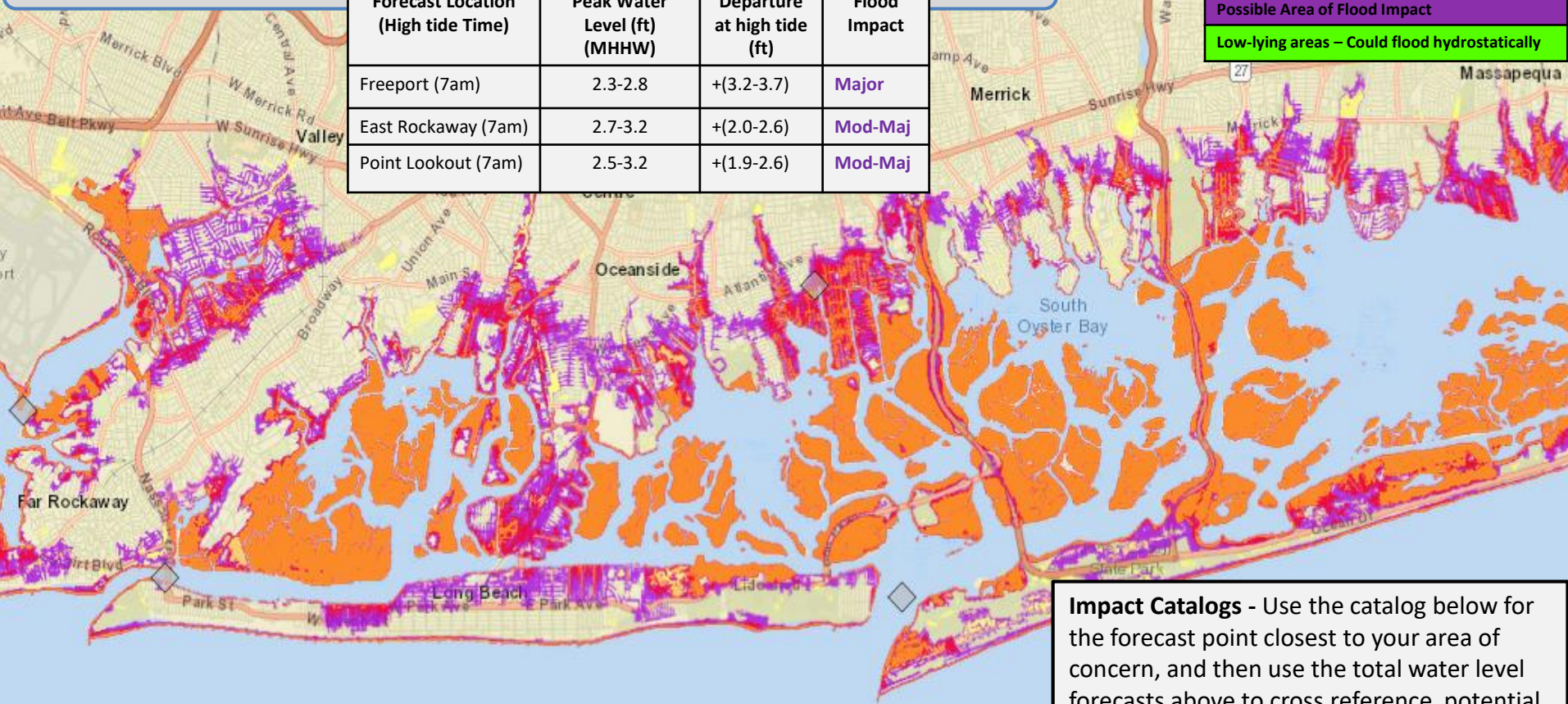


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Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Freeport (7am)	2.3-2.8	+(3.2-3.7)	Major
East Rockaway (7am)	2.7-3.2	+(2.0-2.6)	Mod-Maj
Point Lookout (7am)	2.5-3.2	+(1.9-2.6)	Mod-Maj

Map Legend
Expected Areas of Flood Impact
Likely Areas of Flood Impact
Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



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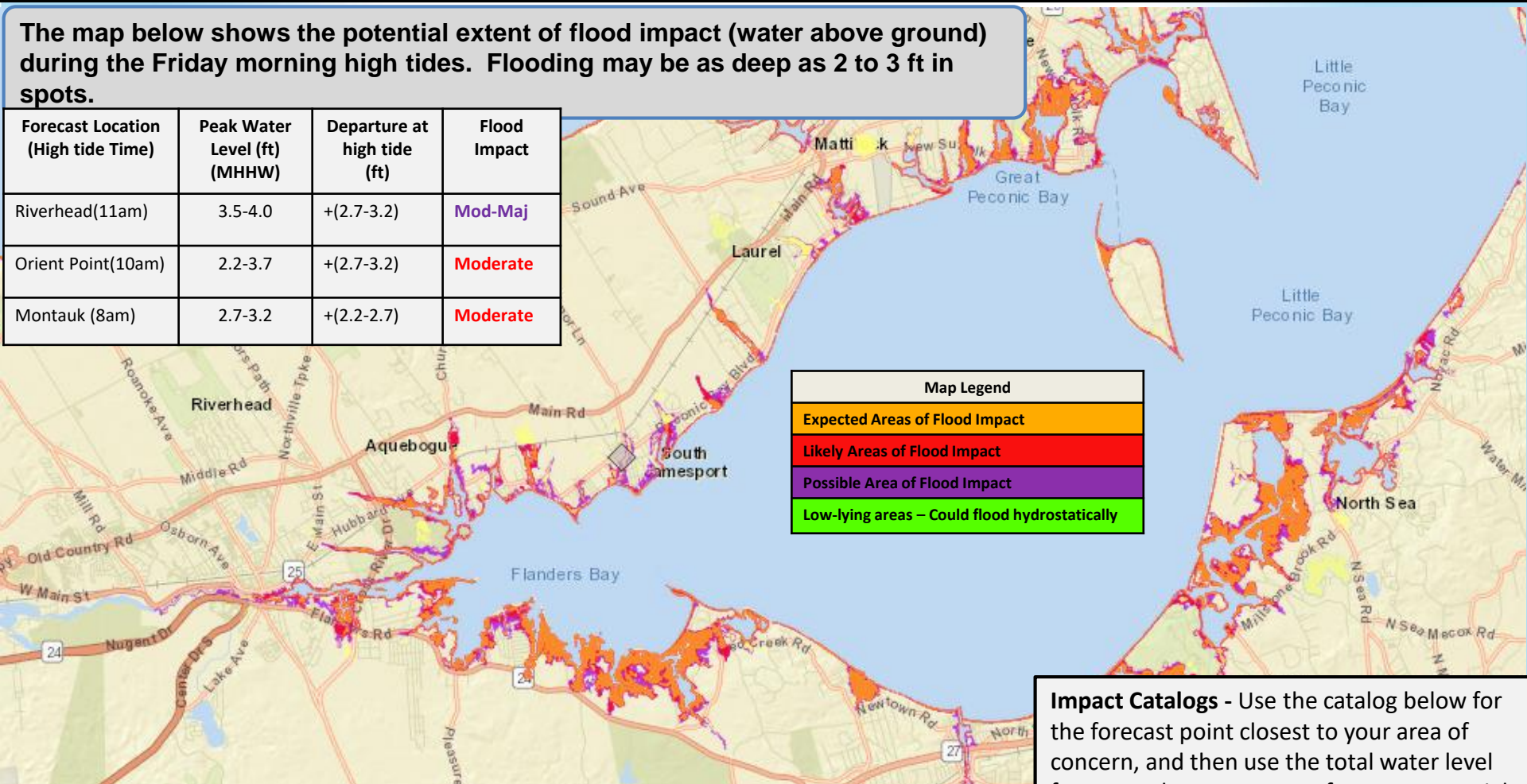
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Riverhead(11am)	3.5-4.0	+(2.7-3.2)	Mod-Maj
Orient Point(10am)	2.2-3.7	+(2.7-3.2)	Moderate
Montauk (8am)	2.7-3.2	+(2.2-2.7)	Moderate



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- [Orient Point](#)
- [Montauk](#)

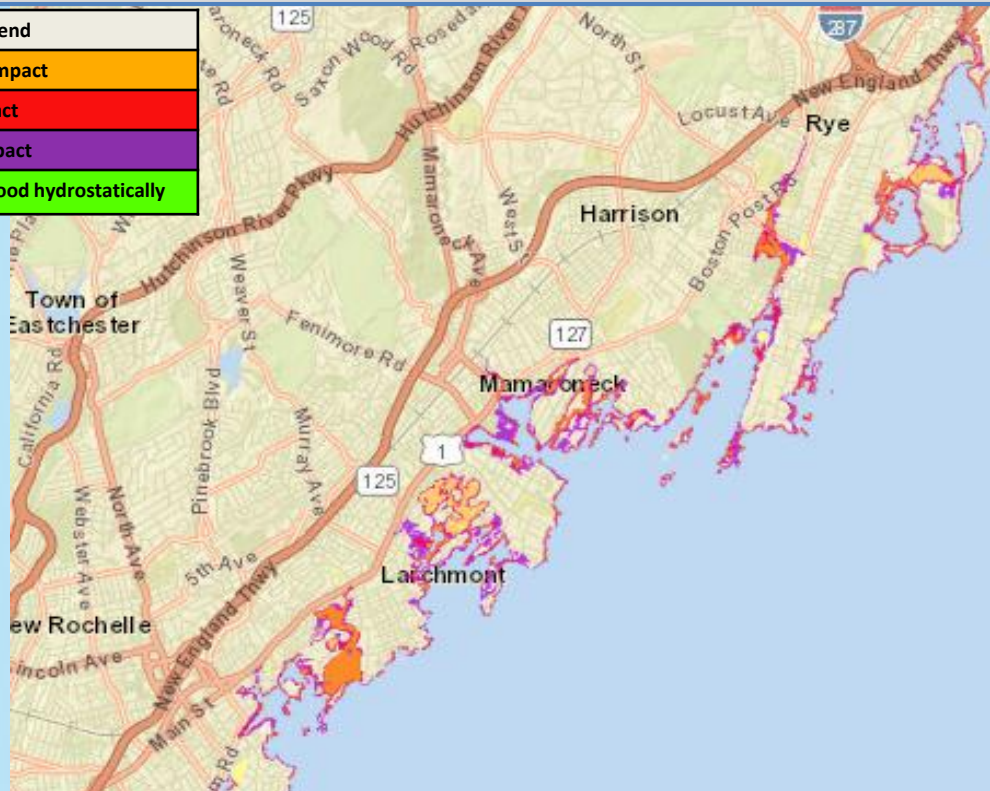
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Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
Stamford (11am)	3.4-4.1	+(2.6-3.1)	Mod-Maj
Kings Point (11am)	3.2-3.7	+(2.1-2.8)	Moderate

Wave action of 2 to 3 ft along shoreline

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- [Stamford](#)
- [King Point](#)

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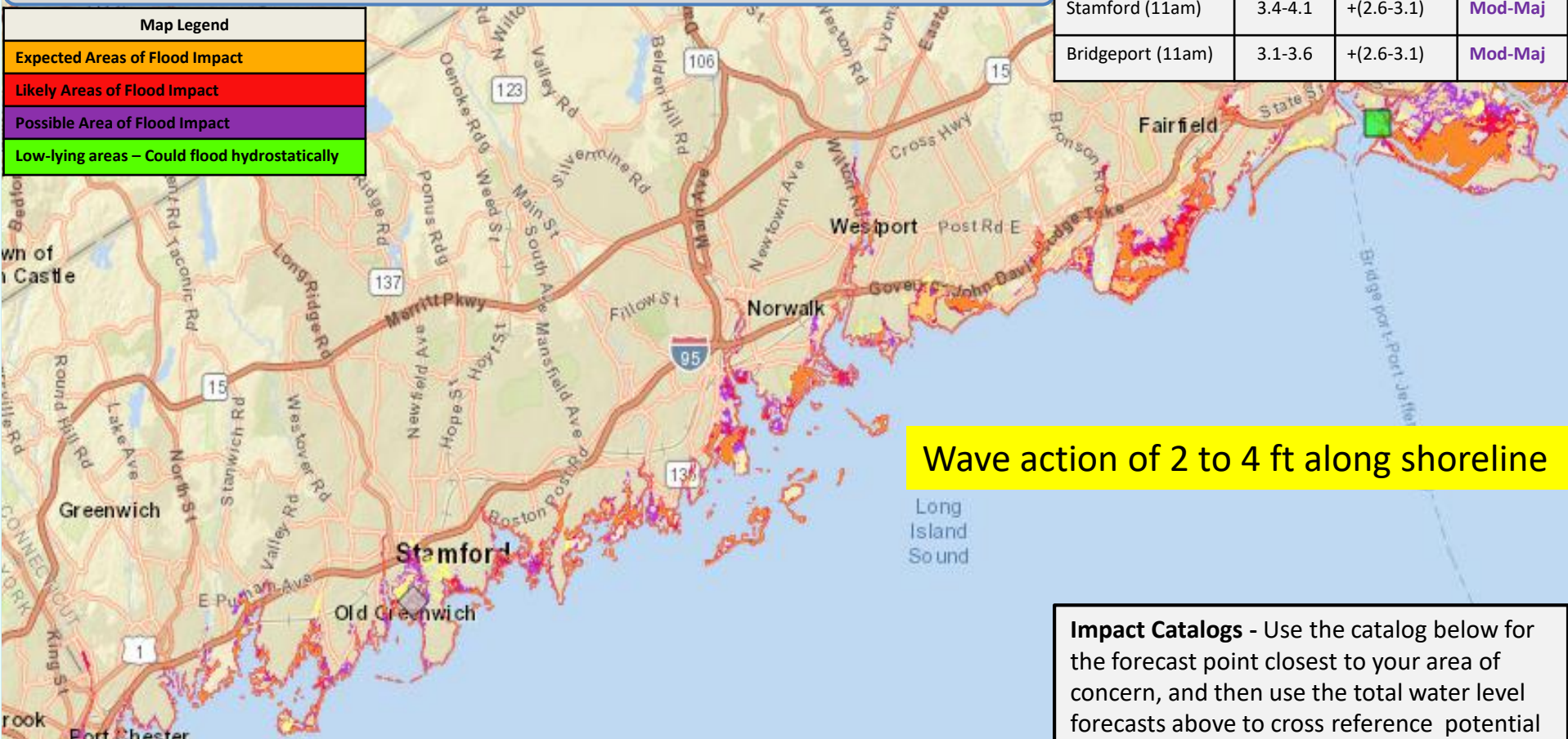


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Stamford (11am)	3.4-4.1	+(2.6-3.1)	Mod-Maj
Bridgeport (11am)	3.1-3.6	+(2.6-3.1)	Mod-Maj

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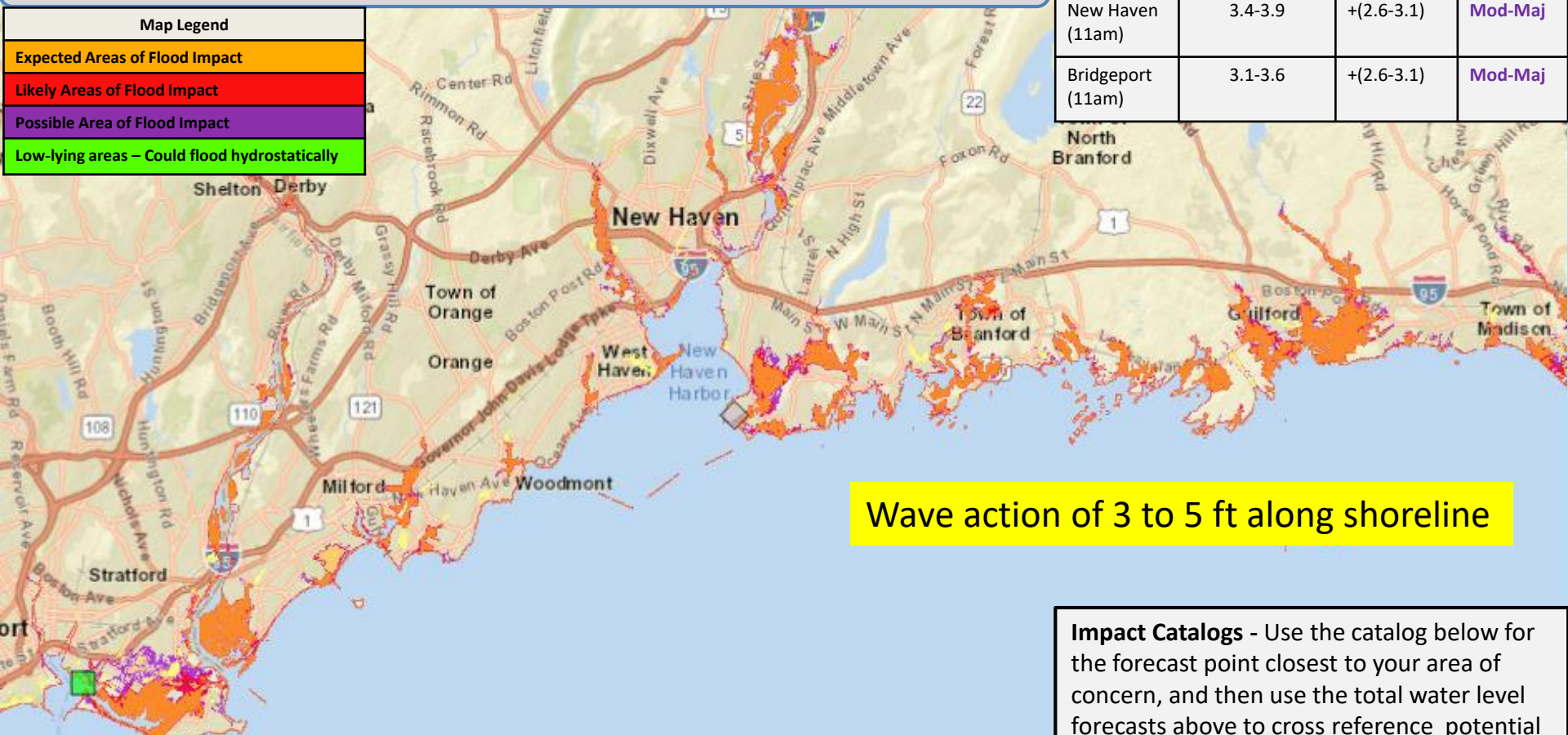
- [Stamford](#)
- [Bridgeport](#)

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Possible Area of Flood Impact
Low-lying areas – Could flood hydrostatically



Forecast Location (High tide Time)	Peak Water Level (ft) (MHHW)	Departure at high tide (ft)	Flood Impact
New Haven (11am)	3.4-3.9	+(2.6-3.1)	Mod-Maj
Bridgeport (11am)	3.1-3.6	+(2.6-3.1)	Mod-Maj

Wave action of 3 to 5 ft along shoreline

**Impact Catalogs** - Use the catalog below for the forecast point closest to your area of concern, and then use the total water level forecasts above to cross reference potential impacts in your area.

- [New Haven](#)
- [Bridgeport](#)

For the latest coastal flood forecasts (hydrographs and tables) and the tools to visualize the potential coastal impacts (zoomable potential flood impact map, impact catalogs, climatology, etc.) in your area of concern please go to the [NWS New York, NY Coastal Flooding Page](#)



## Event Summary

**A potent low pressure system will affect the area through Saturday morning.**

- ✓ Heavy rainfall of 1.5" to 2.5", with locally 3" for the Tri State may lead to local urban and poor drainage flooding late Thursday into Friday afternoon.
- ✓ Southeasterly to southerly winds 25-35 mph with gusts 45-55 mph are increasingly likely over coastal areas and the waters Thursday Night into midday Friday. Winds then shift to the SW/W during the afternoon on Friday with similar speeds through Friday Evening. Gale conditions are expected on all waters late Thu into Fri.
- ✓ Widespread moderate to locally major coastal flooding along the south shore bays of southern Nassau, SW Suffolk, S Queens, Twin Forks of LI, coastal Westchester and CT for Friday am high tide cycles.
- ✓ Widespread dune erosion and scattered overwashes from breaking surf potentially peaking at 10-15 during the Fri into Fri Night period along the oceanfront.
- ✓ Areas of Black Ice and Cold temperatures Fri Eve/Night, with sub freezing temperatures continuing through Monday.